

Appl. No. 09/875,311
Docket No. CM2373
Amdt. dated 5/10/2006
Reply to Office Action mailed on 02/10/2006
Customer No. 27752

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A process for cleaning a surface comprising contacting the surface with an aqueous cleaning composition having a pH of less than 9, said cleaning composition comprising a polymer which renders the surface hydrophilic, and then rinsing the surface with purified rinse water using a hand-held sprayer that is attached to a garden hose when said sprayer is in use, said sprayer comprising a water purifier, which is a component of said sprayer when said sprayer is in use, wherein said purifier comprises ion exchange resin having a volume capacity ~~of no greater than 100 in³~~ between 4 in³ and 8 in³.
2. (Previously Presented) The process of Claim 1 further comprising a step of pre-wetting a soiled surface prior to contacting the surface with the cleaning composition.
3. (Previously Presented) The process of Claim 1 further comprising a step of rinsing the surface with tap water between the steps of contacting the surface with the cleaning composition and rinsing the surface with purified rinse water.
4. (Previously Presented) The process of Claim 1 wherein the surface is selected from the group consisting of: glass, plastic, metal, chrome metal, varnished or sealed surfaces, and an exterior surface of a vehicle.
5. (Previously Presented) The process of Claim 1 wherein the composition modifies the surface to render it hydrophilic, providing a contact angle between water and the surface of less than 80°.

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6. (Previously Presented) The process of Claim 5 wherein the composition modifies the surface to render it hydrophilic, providing a contact angle between water and the surface of less than 40°.
7. (Previously Presented) The process of Claim 6 wherein the composition modifies the surface to render it hydrophilic, providing a contact angle between water and the surface of less than 20°.
8. (Previously Presented) The process of Claim 1 wherein the polymer is selected from the group consisting of: N-vinylimidazole N-vinylpyrrolidone (PVPVI) polymers, polyvinyl pyridine N-oxide (PVNO) polymers, quaternized vinylpyrrolidone/dialkylaminoalkyl acrylate or methacrylate copolymers and mixtures thereof.
9. (Previously Presented) The process of Claim 1 wherein the composition additionally comprises one or more components selected from the group consisting of surfactants, chelants, enzymes, builders, bleaching agents, soil release agents, disinfectants, brighteners, UV protectants, corrosion inhibitors and mixtures thereof.
10. (Previously Presented) The process of Claim 1 wherein the composition is a liquid prior to contacting said surface with said composition, and said composition additionally comprises nanoparticle clay mineral, and at least some of said nanoparticle clay material remains on said surface to assist in the sheeting action of water from said surface.
11. (Previously Presented) The process of Claim 1 wherein purified rinse water is prepared by passing water through said water purifier.
12. (Previously Presented) The process of Claim 11 wherein the purifying device comprises a device selected from the group consisting of: a single ion exchange resin, a mixture of ion exchange resins or layers of such resins, and a combination of mixed and layered ion exchange resins.

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13. (Original) The process of Claim 11 wherein the purifying device comprises at least three layers of ion exchange resin.
14. (Previously Presented) The process of Claim 12 wherein the resin of the purifying device produces a visual indication of depletion of the ion exchange resin.
15. (Original) The process of Claim 1 wherein the cleaning composition and purified rinse water are sprayed onto the surface.
16. (Original) The process of Claim 15 wherein the composition and purified rinse water are sprayed from the same spraying device.
17. (Previously Presented) The process of Claim 16 wherein water is passed through the hose into the purifying device and purified rinse water is then sprayed from the device.
18. (Previously Presented) The process of Claim 1 wherein the cleaning composition has a neutral pH.
19. (Previously Presented) The process of Claim 1 wherein the cleaning composition is sprayed onto the surface with water using a spraying device, and the spray composition has a pH between 4.0 and 9.0.
20. (Previously Presented) The process of Claim 1 wherein said polymer is a copolymer comprising at least one cationic moiety and at least one hydrophilic moiety.
21. (Previously Presented) The process of Claim 20 wherein said hydrophilic moiety is a carboxylic acid selected from the group consisting of acrylic acid, methacrylic acid, and maleic acid.
22. (Previously Presented) The process of Claim 1 wherein said cleaning composition further comprises a nonionic surfactant.

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23. (Previously Presented) The process of Claim 1 wherein said cleaning composition further comprises one type of surfactant, wherein said one type of surfactant consists essentially of one or more nonionic surfactants.
24. (Previously Presented) The process of Claim 23 wherein said one or more nonionic surfactants comprise alkyl polysaccharide surfactants.
25. (Previously Presented) The process of Claim 1 wherein the surface is the external surface of a vehicle.
26. (Previously Presented) The process of Claim 1 wherein at least some of polymer remains on surface after the rinsing of said surface with purified rinse water.
27. (Previously Presented) The process of Claim 1 wherein after the surface is rinsed with purified water, the surface remains hydrophilic following at least one additional rinse.
28. (Previously Presented) The process of Claim 1 wherein after the surface is rinsed with purified water, the surface remains hydrophilic following at least three additional rinses.
29. (Previously Presented) The process of Claim 1 wherein after the surface is rinsed with purified water, the surface remains hydrophilic following at least five additional rinses.

Claim 30 (Canceled)

31. (Previously Presented) The process of Claim 11 wherein said purifying device comprises at least a strong acid cation ion exchange resin and a weak base anion ion exchange resin.
32. (Previously Presented) The process of Claim 11 wherein said cleaning composition is applied using a hose-end spray device, wherein said purifying

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device is used in conjunction with said spray device, and said spray device also comprises a container for storing the cleaning composition.

33. (Previously Presented) A process for cleaning an external surface of a vehicle comprising first contacting the surface with an aqueous cleaning composition comprising a polymer which renders the surface hydrophilic, and then rinsing the surface with purified rinse water using a hose-end spray device that comprises a water purifier which is a component of said spray device when said spray device is in use, wherein said purifier comprises ion exchange resin.
34. (Previously Presented) A process for cleaning an external surface of a vehicle comprising first contacting the surface with an aqueous cleaning composition, said cleaning composition comprising a polymer which renders the surface hydrophilic, said cleaning composition being applied to said external surface of a vehicle using a hose-end spraying device, wherein said composition being applied to said surface using said spraying device is diluted, and has a neutral pH, and then rinsing the surface with purified rinse water using a water purifier which is a component of said spray device when said spray device is in use.
35. (Previously Presented) The process of Claim 34 wherein said spraying device comprises a container for storing the cleaning composition.
36. (Previously Presented) The process of Claim 34 wherein said spraying device comprises a purifying device.
37. (Previously Presented) The process of Claim 35 wherein said spraying device comprises a purifying device.